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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,999	03/31/2004	James M. Wilson	2002-0428 (ATT.0220000)	5224

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EXAMINER	
HERNANDEZ, JOSIAH J	
ART UNIT	**PAPER NUMBER**
2626	

MAIL DATE	DELIVERY MODE
01/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,999	WILSON ET AL.	
	Examiner	Art Unit	
	Josiah Hernandez	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/17/2007 have been fully considered.

After revision of the applicant's arguments, it is much clearer as to what exactly the applicant's invention is. The arguments seem to be valid and given the arguments, the explanations can potentially overcome the prior art references. However, the claims continue to be very broad. The scope of the independent claims do not encapsulate the description of the invention of actually teaching that the finite state machine generates the dialogue application code, rather it broadly interprets a vague concept of using context free grammar in order to create a spoken dialog system. The above mentioned broad interpretation of the independent claims is taught by many prior art references in the art.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 5-12, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehsani et al. (US PGPub 2002/0032564) in view of Valles (US PGPub 2004/0083092).

As to claims 1, 10-12, and 17, Ehsani discloses a method for generating a spoken dialog application (paragraph [0034]), comprising: generating a finite state machine from a grammar representation (a finite state machine is generated from the NLU component, paragraph [0215] lines 1-8, which comes from an interactive/call flow with grammar representation, paragraph [0214] lines 1-11) of a call flow for a spoken dialog system (a call-flow is automatically expanded into recognition grammar, paragraph [0034]); and generating

application code for functions to be executed upon state transitions in said generated finite stat machine (sets of scripts are generated by the application interface after the information is passed from the FSM, paragraph [0216] lines 1-4), wherein said generated application code for said functions are executable during runtime of said spoken dialog system (these application are to be used at runtime, for example, when a person wants to access a bookseller's database and provide dialog for that time, paragraph [0216] lines 4-10). Ehsani does not specifically disclose using context free grammar. Valles teaches a method for developing conversational application dialogs (abstract). State transition systems along with the grammars are build for the dialogs (paragraph [0036] lines 4-10. Valles also teaches using context free grammar for the developments of the dialogs (paragraph [0145] lines 1-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Ehsani with the use of context free grammar as taught by Valles. Doing so gives the advantage of being a more versatile grammar when dealing with diverse meanings and languages (paragraph [0148]).

As to claims 5 and 14, Ehsani does not specifically disclose using Backus-Naur Form format. Valles teaches using augmented Backus-Naur Form (figure 5), which is a form of the augmented context free grammar (paragraph [0145] lines 1-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Ehsani with the use

of Backus-Naur Form format of grammar as taught by Valles. Doing so gives the advantage of being a more versatile grammar when dealing with diverse meanings and languages (paragraph [0148]).

As to claims 6 and 15, Ehsani does not specifically disclose using an augmented Backus-Naur Form format. Valles teaches using augmented Backus-Naur Form (figure 5), which is a form of the augmented context free grammar (paragraph [0145] lines 1-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Ehsani with the use of Backus-Naur Form format of grammar as taught by Valles. Doing so gives the advantage of being a more versatile grammar when dealing with diverse meanings and languages (paragraph [0148]).

As to claim 7, Ehsani discloses a function is associated with a node in said finite state machine (instructions and prompts are associated with each node (state) in the Finite State Machine, paragraph [0211]).

As to claim 8, Ehsani discloses generated application code (sets of scripts are generated by the application interface after the information is passed from the FSM, paragraph [0216] lines 1-4) and customizable databases for application specific lists of objects and such (paragraph [0221]). Ehsani does not specifically

disclose customizing the code. It would have been obvious to one having ordinary skill in the art at the time the invention was made that in order to have a method that is used for developing speech dialog code would have to be customizable or else new dialogs or changes to existing dialogs could not happen.

As to claims 9 and 16, Ehsani discloses an output function performing a table lookup for prompt information (a database to store linguistic knowledge, paragraph [0068], and other information such as: task-oriented discourse (paragraph [0075]) and phrases for automatic creation of grammar network (paragraph [0164] lines 1-10).

3. Claims 2, 3, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehsani et al. (US PGPub 2002/0032564) in view of Valles (US PGPub 2004/0083092) as applied to claim 1 and in further view of Marx et al. (US 6,173,266).

As to claims 2 and 13, Ehsani or Valles do not disclose specifically using a graphical representation of a call flow. Marx teaches a method for development

of speech application dialog and using graphics to represent a call flow (abstract lines 13-16) and generating the grammar representation of said call flow using said graphical representation (graphs are used to represent dialog call flows and the dialogs contain representations of the grammar, column 7 lines 44-46). Ehsani does not specifically disclose using context free grammar. Valles teaches a method for developing conversational application dialogs (abstract). State transition systems along with the grammars are build for the dialogs (paragraph [0036] lines 4-10. Ehsani also teaches using context free grammar for the developments of the dialogs (paragraph [0145] lines 1-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Ehsani with the use of context free grammar as taught by Valles and the graphical interface of Marx. Doing so gives the advantage of being a more versatile grammar when dealing with diverse meanings and languages (Valles paragraph [0148]), and by using graphical interface the user does not have to manually go from one step of the dialog development process to the other (Marx column 3 lines 18-22).

As to claim 3, Ehsani or Valles do not disclose specifically using standardized graphical elements. Marx teaches using icons for the graphical representation (abstract lines 9-11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Ehsani and Valles with the use of graphical elements as taught by

Marx. By doing so the user does not have to manually go from one step of the dialog development process to the other (Marx column 3 lines 18-22).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehsani et al. (US PGPub 2002/0032564) in view of Valles (US PGPub 2004/0083092) as applied to claim 1 and in further view of Marx et al. (US 6,173,266) and Yuschik (US 7,139,706).

As to claim 4, Ehsani, Valles, or Marx do not disclose specifically using Visio. Yuschik teaches a method for developing automatic speech interfaces (abstract) and using Visio for simulation of ASR and prompting dialogs (column 14 lines 43-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Ehsani and Valles with the use of Visio. Doing so would allow an easy form of call flow representation.

Conclusion

Any inquiry concerning this communication should be directed to Josiah Hernandez whose telephone number is 571-270-1646. The examiner can normally be reached from 7:30 pm to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JH

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